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Analysis of the Memorandum "Operating Cost Increases and Annual General Adjustments, 1979-1990," September 26, 1991, by Stephen Barton, Senior Planner, City of Berkeley

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The memorandum "Operating Cost Increases and Annual General Adjustments, 1979-1990," (hereafter referred to as the Barton Report) purports to analyze whether the rent increases granted by the Rent Stabilization Board through the AGA process have exceeded the actual increases in operating cost. The Barton Report concludes that there was an overall 8.06 percent difference between the product of the percentage increases granted by the AGAs and the product of the percentage increases in the operating costs (Barton Report page 4). This brief analysis organizes the problems with the Barton Report into three categories. The first consists of methodological errors. The Barton Report uses fundamental assumptions which are incorrect. The second category involves technical problems in the memorandum itself. The third category deals with errors and omissions within past AGA studies. Although the discovery and correction of certain of the errors in the past AGAs would have required some research, other errors (e.g., the ommision of the 1983 Mosquito Abatement, Vector Control and Paramedical Care assessments until the 1990 AGA) were clearly identified in subsequent AGA studies.

A different methodology than that used in the Barton Report is needed to determine whether rent increases granted through the AGAs have exceeded the increase in operating expenses. In order to accurately compare these increases, the methodology should, for each month, subtract the change in operating expenses from the change in the month's rent. Changes would be measured from the operating expenses and rents of an agreed upon starting date. The dollar amounts from each month would then be summed. A positive total would demonstrate that the AGAs have allowed landlords to collect increased rents that exceeded their increased operating expenses. Alternatively, a negative total would demonstrate that the rent increases have not covered the increased operating expenses. This comparison should be further refined by using a discount factor (i.e., a dollar in 1981 would be valued more than a dollar in 1991 since a dollar in 1981 had greater purchasing power).

INCORRECT METHODOLOGICAL ASSUMPTIONS

The Barton Report contains six methodological errors:

1) The comparison of the product of the percentage increase for rent granted by the AGAs to the product of the operating cost percentage increase,
2) No adjustment when the AGA study treats operating expenses which occurred almost a year apart as if they had occurred at the same time,
3) No adjustment when multiple changes in an operating expense have occurred during a single year,
4) No adjustment when AGA studies have not compensated for increases in operating expenses that have been missed in past AGA studies,
5) The comparison of the increased costs in the AGA studies to the AGA's increase as if they occurred during the same time period, rather than recognizing a 6 to 18 month lag between the increases in operating costs and the AGA, and,
6) The assumption that there have been no errors or omissions in the AGA studies.

1. THE COMPARISON OF THE PRODUCT OF THE PERCENTAGE INCREASE FOR RENT GRANTED BY THE AGAs TO THE PRODUCT OF THE OPERATING COST PERCENTAGE INCREASE

The Barton Report multiplies the percentage increases of the AGAs to derive a cummulative 1979-1991 product for the individually-metered buildings of 67.31 percent. The report similarly multiplies the percentage increases in operating expenses in the AGA studies to derive a cummualtive 1979-1991 product for the individually-metered buildigs of 51.31%. The report then compares the cummulative product of the AGAs to the cummulative product of the reported increased costs in operating expenses and concludes that the operating cost increases granted by the Rent Stabilization Board through the AGAs have exceeded actual operating expenses. However, there is a fundamental error in this methodology. The following example demonstrates that although the product of the AGAs is equal to the product of the operating cost increases, it need not follow that the operating cost increases granted by the AGAs have covered the past increases in operating expenses.

Assume that in 1980 all operating expenses started at $1,000.00 per unit per year and increased by 100 percent in January in 1980 to $2,000.00 per year, and no other operating expense increases occurred between 1980 and 1990. Assume also that the AGAs between 1980 and 1989 allowed zero increases and the 1990 AGA allowed a one hundered percent increase in rents. By the standard used in the Barton Report, the landlords have received rents that covered their operating expenses. That is, between 1980 and 1990 the operating expenses had increased by 100

percent and the AGA's had granted a 100 percent increase in operating expenses. However, as of December 1989, the total operating expenses have been $20,000.00 while the operating expense rents collected under the AGAs have been $10,000.00.

Another way to approach this issue is to ask, what AGA adjustment would have been necessary to fully cover the increase in operating expenses? The 1990 AGA would have had to have been for $10,000, a 1,000 percent increase. In this example, althrough the AGA increase exactly covers the past increase in operating expenses, the cummulative AGA increase is 1,000 percent while the cummulative operating cost increase is only 100 percent.

These examples illustrate that a comparison of the products of the operating cost increases from 1979 to 1991 to the product of the AGA increase in rents does not allow one to determine whether or not the operating cost increases granted by the Rent Stabilization Board through the AGA have exceeded the actural operating cost increases.

2. NO ADJUSTMENT WHEN THE AGA STUDY TREATS OPERATING EXPENSES WHICH OCCURRED ALMOST A YEAR APART AS IF THEY HAD OCCURRED AT THE SAME TIME

The AGA studies give the same weight to all cost increases between July 2nd of the prior year and July 1st of the current year. To illustrate the problem, a $5.00 a month cost increase in sewer treatment that started July 2nd is treated the same as a $5.00 a month cost increase in refuse collection increase that started July 1st of the next year. However, on July 1st the

landlord has already paid $60.00 for the increase in sewer expenses and nothing for the increase in refuse collection. The Barton Report simply accepts this time-lag and does nothing to compensate or adjust for it.

3. NO ADJUSTMENT WHEN MULTIPLE CHANGES IN AN OPERATING EXPENSE HAVE OCCURRED DURING A SINGLE YEAR

The AGA studies use the total change in an operating expense that occurred between July 2nd of the prior year and July 1st of the current year. In reality, an operating expense can change many times during a year. For example, residential electrical rates were adjusted eleven times in the eleven AGAs from 1981 through 1991. However, residential electrical rates actually changed 50 times during this period. These mid-year changes in operating expenses are not adjusted for in the AGA studies. To illustrate, the electrical rates increased in January 1992 and again in July 1992. The real increase in electrical operating expenses that occurred between January 1992 and July 1992 is ignored in the AGA study, and therefore would also be ignored in the Barton Report.

4. NO ADJUSTMENT WHEN AGA STUDIES HAVE NOT COMPENSATED FOR INCREASES IN OPERATING EXPENSES THAT HAVE BEEN MISSED IN PAST AGA STUDIES

The Barton Report does not adjust for the fact that the AGAs have never retroactively passed through cost increases that have been overlooked or omitted from earlier AGA studies.

This can be illustrated by the Paramedical Care Assessment. This fee was first assessed in 1983. However, it did not appear as an operating expense until six years later in the 1990 AGA. Therefore, since the fee is $34.00 per unit per year, about $200.00 was not considered as a cost to the landlord.

Other cost increases that were overlooked in the 1981 through 1988 AGAs were the county mosquito abatement special assessment and the county vector control.

5. THE COMPARISON OF THE INCREASED COSTS IN THE AGA TO THE AGA'S INCREASE AS IF THEY OCCURRED DURING THE SAME TIME PERIOD, RATHER THAN RECOGNIZING A 6 TO 18 MONTH LAG BETWEEN THE INCREASES IN OPERATING COSTS AND THE AGA

The Barton Report makes it appear that the AGA rent increases occurred at the same time as the cost increases that were analyzed. The Barton Report does not address the element of the time lag between the cost increases and the rent increase. For example, the 1990 study looked at cost increases between June 1989 and June 1990, but the rent increases to recover these additional costs did not became effective until January 1991.

To illustrate the effect, assume that past AGAs have fully covered operating expenses as of July 1986. Further assume that the operating expenses increased $2.00 a month between July 1986 and June 1987 and continued to increase at $2.00 a month (i.e., by $4.00 in the second month, by $24.00 in the twelfth month). The 1988 AGA would be $24.00 starting in January 1988. However, by January 1988, the landlords have already spent $342.00 on increased operating expenses over the last eighteen months. At the end of January, the rent has increased by $24.00 per month, but operating expenses have increased by $36.00 per month, $12.00 more than the rent increase. Costs will continue to rise each month while the rent will not increase until the following January. The 1989 AGA would again be for $24.00 starting in January 1989, an increase of $48.00 over the July 1987 rent level. However, the operating expenses have now increased by $60.00 per month over the July 1987 level and the landlords have spent $684.00 on operating expenses which have not been addressed

through the AGAs.

The failure to compensate for this time-lag element is a fundamental flaw in the Barton Report's methodology. As a result, the conclusion reached by the report is questionable.

6. THE ASSUMPTION THAT THERE HAVE BEEN NO ERRORS OR OMISSION IN THE AGA STUDIES

The Barton Report did not adjust for errors or omissions in the AGA studies.

To illustrate, the September 1982 increase in the Rent Board Registration Fee from $12.00 to $30.00 per unit per year was never reported as part of the increase in operating expenses. The 1982 AGA study assumed that, since the increase occurred after July 1, 1982, it would be taken into account in the next year's AGA. In the 1983 AGA, it was assumed that the fee increase had already been taken into account. Thus, the operating expense of $18.00 per unit per year was never brought before the Rent Board to consider as part of the AGA. Between September 1982 and June 1990, $126.00 per unit was spent to cover this increased operating cost.

To truly compare operating cost increases to rent increases, all previously overlooked or omitted cost increases must be included. In addition, the total amount spent to cover the increased cost must be added to the operating expense (i.e., the $126.00, not just the $18.00).

Other omissions include the effect of the city's initial 3.0 percent utility tax on the cost of gas and electricity and the initial street lighting and landscaping and parks assessment.

ERRORS WITHIN THE BARTON REPORT

The second categories of errors are those found within the Barton Report.

1. The Barton Report assumes that in 1979 a five percent increase in rents occurred while costs for a individually-metered unit increased by an average of only 3.63 percent. The logic used here is clearly incorrect. The five percent increase in rents was not automatic, but rather there was a maximum of up to a five percent increase in rents, provided proof of increased costs were presented. Therefore, based on Barton's own figures, the average increase in rents could only be 3.63 percent at most.

In fact, the increase in rents would have averaged less than 3.63 percent. First, the landlords whose costs rose by more than five percent could not recover all of the cost increase, only the first five percent. Second, not all landlords asked for or took the rent increase.

The methodology used to obtain the 3.63 percent increase is also very questionable. The Barton Report estimates the cost increase for 1979 by using the ratio of the increase in operating costs to the increase in the Consumer Price Index for all subsequent years, 1980 through 1991 (see Barton Report, page 3). The numbers and ratios used are not presented in the report.

However, suppose the average increase in operating costs for 1980 and 1981 is used. Since these are the two closest years to 1979, the types of expenses increasing in 1980 and 1981 are more likely to reflect expense increases in 1979 than expense

increases in 1990 and 1991. From the "Summary Table of AGA Increases Vs. Reported Cost Increases", on page 5 of the Barton Report, these cost increases for an individually-metered unit were 4.11% and 5.39%, repectively. From page 9 of the report, the June 1980-June 1979 increase in the Bay Area CPI-U was 10.41%, and the June 1981-June 1982 increase was 11.22%. The combined CPI-U increase was 22.798 percent. From the Summary Table, the combined 1980 and 1981 cost increase was 9.822 percent. The ratio of the cost increase to the CPI increase was 42.64 percent.

From page 9 of the Barton Report, the June 1979-June 1980 increase in the Bay Area CPI-U was 16.79 percent. Taking 42.64 percent of this amount would result in an estimated cost increase for 1979 of 7.16%, almost double the 3.60 percent used in the table on page 5 of the Barton Report.

	Reported Cost Increase	Bay Area CPI-U Increase	Cost Increase As a Percent of CPI-U Increase
1980-81	4.11%	10.41%	39.48%
1981-82	5.39%	11.22%	48.04%
1980-82	9.722%	22.789%	42.64%
Estimate for			
1979-80	7.16%	16.79%	42.64%

If the 1980 estimate in the Barton Report (3.60 percent) were correct, the operational costs would have increased at only 21.44 percent of the CPI, or at about 50 percent the rate of inflation. This seems very unlikely.

2. Barton's computations are based on inconsistent data. The numbers for the reported operating cost increases used in the calculations for the table on page 5 of the Barton Report do not agree with those reported on pages 11 through 14 as the recommeded AGA increases. In the table below, IM stands for individually-metered; MM stands for master-metered.

AGA Year	Increases Reported on Page 5	Increases Reported on Pages 11 through 14
1981	4.11% for IM Buildings	4.00% for IM Buildings
1981	4.44% for MM Buildings	4.20% for MM Buildings
1982	7.29% for MM Buildings	7.31% for MM Buildings
1983	4.40% for IM Buildings	4.41% for IM Buildings
1983	6.31% for MM Buildings	6.50% for MM Buildings
1984	2.40% for IM Buildings	2.45% for IM Buildings
1985	2.65% for IM Buildings	2.78% for IM Buildings
1986	4.00% for MM Buildings	4.05% for MM Buildings
1988	6.56% for MM Buildings	6.51% for MM Buildings

3. The Barton Report used only the operating increases reported in the summary sheets for each report. However, in the studies for the 1987 and 1988 AGAs, the insurance increases were included in the bodies of the AGA studies but not on the summary pages. Therefore, Barton's calculations did not include these increased costs.

4. Three assessment costs first occurred in 1983 but were not incorporated in the AGA until 1990 (i.e., Mosquito Abatement, Vector Control and Paramedical Care). The Barton Report used the increase in the 1990 AGA. This underestimated the increase because these were basically fixed per-unit costs and the rent had increased between 1983 and 1990 (e.g, $34.00 per unit was about 1% of the rent in 1983, but only about 0.8% or the rent in 1990).

5. Inconsistent numbers are used within the Barton Report. Page 7 of the report states that operating expenses were 40% of rent in 1979 and 44.1% in 1981. If this is correct, then the operating expenses increased from $93.33 in 1979 to $113.45 in 1981. This is a 21.56% increase over two years. Yet on page 5, Barton shows an increase of 7.86 percent in operating expenses between 1979 and 1981.

Further, Hamilton, Rabinovitz & Alschuler (HRA, "Inflation indexing in Berkeley Rent Regulation in the Aftermath of the Searle Decision", 1991) did not independently estimate the 1979 operating expenditures in Berkeley at 40 percent of rent, as implied on page 7 of the Barton Report. Rather, the 40 percent figure for 1979 came from a study of the City of Santa Monica. The 44.1 percent figure for 1981 and the 54.9 percent figure for 1990 came from the Rent Board's own AGAs. These figures were not studied or adjusted by HRA, but simply quoted from the AGA studies. None of these numbers came from an independently conducted study of operating expenses in Berkeley.

6. The Barton Report used the 1988 Preliminary AGA study of September 6th for its source of information on cost increases rather than the final version from September 26th. The reported increase for the individually-metered unit for 1989 should have been 1.61, not the 1.51 used in the report.

7. The Barton Report uses a cost increase for individually-metered buildings only 50 percent of the increase for Gas: Hot

Water Only and Electricity: Common Area. Since the AGAs were based on the full increase for individually-metered buildings, this alone would bias the comparison between the reported cost increases and the AGAs granted by understating cost increases. Since others have discussed this issue in past AGA studies, it is not clear why the Barton Report included only 50 percent of the gas and electricity for individually-metered buildings rather than 100 percent.

8. The Barton Report ignores the fact that some cost increases are clearly underestimated even though this has been identified in most of the AGA studies. The most obvious case is the property tax increase. While the AGA reports have assumed a 2.0% annual increase in the taxable assessed value of rental property, the property tax increase could be vastly understated when property has been recently resold. In such cases the ratio of the property tax cost to gross income would be much higher.

9. The following three examples are instances where the Barton Report overestimated the reported increase in operating expenses:

a. The report included the July 1, 1981 increase in Sewer Service/Maintenance as a cost increase in both the 1982 AGA study and the 1983 AGA study.

b. The report included the July 1, 1983 Water increase as a cost increase in both the 1984 AGA study and the 1985 AGA study.

c. The report included the July 1, 1983 Sewage Treatment

increase as a cost increase in both the 1984 AGA study and the 1985 AGA study.

d. The report included the July 1, 1983 Business License increase as a cost increase in both the 1984 AGA study and the 1985 AGA study.

e. The report included the July 1, 1983 Library assessment increase as a cost increases in both the 1984 AGA study and the 1985 AGA study.

ERRORS WITHIN PAST AGA STUDIES

There are many errors that occurred within the past AGAs. A number of the major errors are listed below. A thorough documentation of the errors and omissions would require a special study.

1. The City of Berkeley's 3.0 percent utility tax on the cost of gas and electricty was not included in the 1985 AGA. This was not corrected in any subsequent AGA.

2. The increase in the Rent Board Registration Fee from $12.00 to $30.00 per unit per year was not included in the 1984 AGA. This was not corrected in any subsequent AGA.

3. The initial Street Lighting and Landscaping and Park assessments were not included in the 1984 AGA. This was not corrected in any subsequent AGA.

4. The introduction of the elevation charge was not included in the 1986 AGA. This was not corrected in any subsequent AGA.

5. The increase in the Sewage Service/Maintenance charge from $2.25 to $2.35 per 100 cubic feet was missed in the 1988 and 1989 AGA. This was not corrected in any subsequent AGA.

6. Management ratio was reduced from .07 to .06 in the 1985 AGA study and held constant at .06 in the 1985 through 1989 AGA studies. The logic was incorrect. Even if the management ratio is assumed to be a constant, it would be a constant of the unconstrained rent, not the rent constrained by rent control.

Therefore, a ratio that was constant proportion of unconstrained rent would be an increasing proportion of constrained rent.

There were also several possible errors in prior AGAs:

1. The use of the percentage costs from the Santa Monica study for 1980 makes little sense unless the rental costs were also similar in Berkeley and Santa Monica. For example, if the average cost of electricity was $30.00 per month in both cities, but the average rent was $300.00 in Berkeley and $450.00 in Santa Monica, the Santa Monica study would show that electricity cost equalled 6.7% of the gross income. However, it would be 10.0% of gross income in Berkeley.

2. In the 1981 AGA, it was assumed that one-half of the Library Assessment was canceled out by the expiration of Measure Y. Measure Y was based on the property value of residential and commercial space, and the Library Assessment was based on the square footage of residental and commercial space. However, the study for the 1981 AGA does not include a breakdown of each assessment by the property value of rental property and the square footage of rental property per unit Therefore, the conclusion in the 1981 AGA that half of the library assessment was equal to the Measure Y assessment was never backed up by empirical evidence.

SUMMARY TABLE WITH A REVISTION OF REPORTED COST INCREASES

The majority of the technical errors in the Barton Report and known errors and omissions from past AGA studies were corrected to calculate a revised cost increase for each year from 1980 to 1991. These are presented in the table below. The result is that rather than an overall 8.06 percent difference between the product of the percentage increases in the AGAs and the product of the percentage increases in operating costs (Barton Report page 4), the difference is only 0.29 (Table, page 20). Thus, over 96 percent of the supposed discrepency found in the Barton Report was eliminated when some of the errors and omissions in past AGAs were corrected.

These corrections do not include the fact that business license expenses would have been higher for master-metered buildings, since master-metered units had been granted larger rent increases than individually-metered units in the 1981, 1982, 1983 and 1989 AGAs. In addition, no attempt has been made to recapture costs that had been overlooked for a number of years (e.g., paramedical care between 1984 and 1990) nor do they address the time-lag issues. All of these issues, if addressed, would raise the cummulative reported cost increase. In addition, effects of different AGA studies using different methodologies to calculate increases in costs has not been addressed.

The following table revises the table on page 5 of the Barton Report for the known errors in the AGAs and the technical problems within the Barton Report itself. However, the errors in

Barton's methodology were not corrected (e.g., no weight was given to the timing of the increases). Because Barton used fundamental assumptions which were incorrect, his procedure does not accurately compare increases in the rent and operating costs even when the errors in the data that he used were corrected.

SUMMARY TABLE OF AGA INCREASES VS REVISED COST INCREASES
(to be compared to table on page 5 of Barton Report)

AGA YEAR	Ind. Metered AGA	Master Metered AGA	Reported Increase	Reported Increase	Ind. Metered Diff.	Master Metered Diff.
1979						
1980	5.00%	5.00%	7.16%	7.99%	-2.16%	-2.99%
1981	5.00%	6.20%	4.11%	4.44%	.89%	1.76%
1982	9.00%	12.00%	5.44%	7.37%	3.56%	4.63%
1983	4.75%	5.00%	4.38%	6.28%	.37%	-1.28%
1984	0.00%	0.00%	3.24%	3.33%	-3.24%	-3.33%
1985	2.00%	2.00%	3.55%	4.14%	-1.55%	-2.14%
1986	3.83%	3.80%	3.88%	4.39%	- .05%	- .59%
1987	3.50%	3.50%	3.77%	3.56%	- .27%	- .06%
1988	7.76%	7.46%	8.47%	8.56%	- .71%	-1.10%
1989	3.00%	3.50%	2.07%	2.91%	.93%	.59%
1990	4.48%	4.29%	2.83%	4.98%	1.56%	- .69%
1991	4.55%	4.37%	1.88%	3.82%	2.67%	.55%
1979-1991 Cumulative	67.31%	73.97%	64.12%	82.30%	3.17%	-8.34%
Barton's Surplus AGA increase as a percent of 1991 rent					1.89%	-4.34%
				Weights	76%	24%
				Weighted Average	0.29%	

Average 1991 Rent was $375.20 per month
Barton's Surplus AGA increase expressed in dollars $1.09

Weighted Average from page 4 of Barton Report 8.06%

Weighted Average from Revised Table above 0.29%

Percent of Barton's Weighted Average that has dissappeared 96.4%

RECOMMENDATIONS

Finally, it is recommended that two studies be undertaken by the Rent Stabilization Board. The first study would identify errors and omissions in past AGAs and changes and inconsistencies in the methodologies used. The second study would analyze rent increases and increases in operating expenses from June 1979 through December 1991 (i.e., prior to the Searle increase) based on the methodology used in the 1993 AGA study.

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